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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554  
JUL 15 1996

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF SECRETARY

In the Matter of

Amendment of Part 95 of the  
Commission's Rules to Establish  
a Very Short Distance  
Two-way Voice Radio Service

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WT Docket No. 95-102  
RM-8499

To: The Commission

**RADIO SHACK  
DIVISION OF  
TANDY CORPORATION**

**OPPOSITION TO PETITIONS FOR RECONSIDERATION**

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Dated: July 15, 1996

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To: The Commission

**OPPOSITION TO PETITIONS FOR RECONSIDERATION**

The Radio Shack Division of Tandy Corporation (Tandy), pursuant to Section 1.106(g) of the Commission's rules,<sup>1</sup> hereby respectfully submits its opposition to the petitions for reconsideration of the Commission's Order in the captioned proceeding.<sup>2</sup> The petitions were filed by Dr. Michael Trahos (the "Trahos Petition") and by Corwin Moore, Administrative Coordinator of the Personal Radio Steering Group (the "Moore Petition") on July 3 and 5, 1996 respectively. The Trahos Petition is superfluous. The Moore Petition has not demonstrated any grounds for reconsideration of the Commission's Order and it should be denied.

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1. 47 C.F.R. § 1.106(g).

2. Report and Order released May 15, 1996, FCC 96-215, Federal Register Notice published June 6, 1996 at 61 Fed. Reg. 28768 ("FRS Order").

## **I. INTRODUCTION**

The Commission's Order establishes rules, effective July 8, 1996, governing the new Family Radio Service (FRS). FRS is an innovative, two-way, short-distance voice radio service. It will provide low cost, high quality communications capabilities not afforded by any existing or proposed radio service.

FRS will enable millions of Americans -- especially small groups such as families, friends and colleagues -- to maintain close contact with only a modest investment.<sup>3</sup> With a transmitter power of just 500 milliwatts, a palm-sized FRS unit will provide clear, reliable communications in myriad situations. FRS will provide all of these benefits to the public without the burdensome licensing and operating requirements that often deter potential users from many existing radio services.

FRS will add new users on the following channels situated between the main General Mobile Radio Service (GMRS)<sup>4</sup> channels:

<u>462 MHz GMRS/FRS Band</u>	<u>467 MHz FRS Band</u>
462.5625 MHz	467.5625 MHz
462.5875 MHz	467.5875 MHz
462.6125 MHz	467.6125 MHz
462.6375 MHz	467.6375 MHz
462.6625 MHz	467.6625 MHz
462.6875 MHz	467.6875 MHz
462.7125 MHz	467.7125 MHz

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3. The cost of FRS transceivers is projected to be in the \$100-150 range.

4. The GMRS rules are in Part 95, Subpart A of the Commission's rules, 47 C.F.R. Part 95, Subpart A.

The 462 MHz band will be shared by GMRS and FRS, while the 467 MHz band will be limited to FRS.

The Commission carefully crafted and refined FRS technical standards to ensure that FRS transmissions do not interfere with GMRS transmissions on the shared 462 MHz band. For example, FRS transmitters may have no more than a 0.5 watt effective radiated power (ERP). 47 C.F.R. § 95.637(d). At 5 watts, GMRS transmissions in this band may be up to ten times stronger than the maximum ERP of FRS transmissions. See 47 C.F.R. § 95.29(f)(3). GMRS users, moreover, may employ a 6.1 meter antenna (above ground or above the structure upon which it is mounted). 47 C.F.R. § 95.51(f). FRS users' antennas, by contrast, must be integral to the FRS transmitter and have no gain. 47 C.F.R. § 95.645.

FRS units must maintain a strict frequency tolerance of 0.00025%. 47 C.F.R. § 95.627(b). The authorized bandwidth for emission type F3E transmitted by FRS units is limited to 12.5 KHz, ensuring that FRS transmissions will not affect GMRS main channel transmissions. 47 C.F.R. § 95.631(c). Tight frequency modulation standards further ensure non-interference: FRS units may not exceed a peak frequency deviation of plus or minus 2.5 KHz, and the audio frequency response must not exceed 3.125 KHz. 47 C.F.R. § 95.635(a).

The Commission's exacting FRS technical standards will ensure (1) that FRS and GMRS can share the 462 MHz channels with no disruption to GMRS operations and (2) that FRS operations have no impact on GMRS main channel operations. The FRS technical standards also will allow numerous FRS users to share the same FRS channel at the same time provided they are a modest distance apart. In fact, these rules should "make it possible

for the fourteen channels to serve millions of FRS users simultaneously." FRS Order ¶ 11.

As demonstrated below, there is no need to delay the benefits of the Family Radio Service to address the Trahos and Moore Petitions.

## **II. THE TRAHOS PETITION IS SUPERFLUOUS**

The Trahos Petition seeks clarification that the Commission's rules permit communications between GMRS and FRS operators sharing the 462 MHz band. Neither the GMRS nor FRS rules prohibit such communications. Section 95.53(c)(e) and 95.181(i)(14) of the Commission's GMRS rules<sup>5</sup> prohibit GMRS communications with unauthorized stations. FRS users, however, are authorized to use the 462 MHz channels. 47 C.F.R. § 95.627(a). Thus, the Commission's rules permit GMRS and FRS operators to communicate on the 462 MHz channels. If there is any uncertainty regarding the propriety of such GMRS/FRS communications, the Commission should clarify that its rules do not prohibit such communications.

## **III. THE MOORE PETITION SHOULD BE DENIED**

Mr. Moore has participated extensively in this proceeding. In comments and reply comments filed August 25 and September 9, 1994, he opposed the Petition for Rule Making to establish FRS. In comments and reply comments filed October 2 and 17, 1995, Mr. Moore opposed the Commission's FRS Notice of Proposed Rulemaking.<sup>6</sup> Cumulatively, he

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5. 47 C.F.R. §§ 95.53(e)(4) & 95.181(i)(14)

6. NPRM released August 2, 1995, FCC 95-261, 10 FCC Rcd 8235 (1995).

has filed more than 75 pages of commentary opposing FRS. On July 5, 1996, Mr. Moore filed his petition for reconsideration of the FRS Order.<sup>7</sup>

The matters raised in the Moore Petition:

- have been considered and are already addressed by the FRS rules,
- have been presented to the Commission and rejected, or
- lack merit.

For these reasons, the Moore Petition should be denied.

#### **A. The Moore Petition Lacks Merit**

The Moore Petition is replete with misguided proposals. The Commission already has considered and rejected many of these proposals (see discussion infra at 6-7); others Mr. Moore now presents for the first time. For example, Mr. Moore (Moore Pet. at 11-12) asks the Commission to prohibit external powering of FRS units. Such a proposal is ill conceived. First, the premise that the ability to externally power an FRS unit will encourage use of FRS units as "land stations" is not a legitimate basis for banning external power sources. Permitting consumers to recharge the batteries of an FRS unit, but prohibiting them from using the unit while it is being recharged, would needlessly interfere with the utility of the service. Parents, for example, may wish to monitor their children at play nearby the home using an external power supply for their FRS units. Similarly, FRS users on the road may prefer to use an adapter plug to conserve battery power or when their battery power is low.

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7. Mr. Moore also filed a petition to stay the Commission's FRS rules on July 5, 1996. Tandy filed an opposition to that stay request on July 9, 1996.

Mr. Moore asserts that FRS operations will interfere with GMRS operations as a result of the use of FRS units in a repeater-station mode. See Moore Pet. at 5-6. The Commission already has determined that "claims of potential interference to GMRS systems from the operation of FRS units are overstated." FRS Order ¶ 9. In fact, the FRS Rules do not contemplate the use of FRS units in a repeater-station mode. FRS Rule 3 enumerates the types of communications that may be conducted with an FRS unit; it does not permit repeater communications. 47 C.F.R. § 95.193. FRS Rule 4, moreover, forbids users from modifying FRS units or attaching any non-FCC certified apparatus to an FRS unit. 47 C.F.R. § 95.194. Accordingly, the FRS Rules cannot be interpreted to permit the use of FRS units as repeaters and Mr. Moore's concern is misplaced.

Although previously arguing for rigid FRS technical standards in this proceeding, Mr. Moore now suggests that the Commission relax its FRS technical standards for the 462 MHz band. See Moore Pet. at 13-14. The added cost of designing and manufacturing equipment capable of meeting dual technical standards makes it unlikely that manufacturers would avail themselves of this proposal.

**B. The Moore Petition Contains Proposals Already Addressed By The FRS Rules**

Mr. Moore proposes that FRS rules specify that messages carried over the Public Switched Network ("PSN") may not be transmitted by an FRS unit and that no FRS unit may be used to transmit signals over the PSN. See Moore Pet. at 6-7. The Commission's rules, however, provide that "No FRS unit may be interconnected to the public switched network." 47 C.F.R. § 95.193(e). It defies common sense to suggest that FRS users, who cannot



interconnect with the PSN, would use an FRS unit to transmit messages to or from the PSN since FRS units have a very short range: an FRS user would, by necessity, be in close proximity to the telephone and would be much more apt to simply use the telephone rather than engage in the convoluted behavior posited by Mr. Moore.

Mr. Moore expresses concern for the failure of GMRS users to monitor before transmitting, citing it as a frequent complaint of the GMRS community. See Moore Pet. at 9. He urges a prohibition on FRS use of continuous selective-calling protocols such as CTCSS and DCS. The Commission, however, has resolved this issue and determined that such protocols "may be transmitted continuously only while you are talking." 47 C.F.R. § 95.1293(b).

**C. The Commission Has Considered And Rejected Proposals  
In The Moore Petition**

Mr. Moore renews his request that the Commission require a transmitter time-out device in FRS units. See Moore Pet. at 7. Mr. Moore previously raised this issue in comments (at 9) and again in reply comments (at 23) filed October 2 and 17, 1995. Mr. Moore's disagreement with the Commission's disposition of this proposal is not grounds for reconsideration. More importantly, it would not improve the prospects for an affordable FRS -- a touchstone of the service, see FRS Order ¶ 1 noting that "innovative [FRS] products can be supplied at low cost" -- if the Commission were to mandate costly features.

Many other matters already considered and rejected by the Commission (such as the use of CTCSS and DCS, the use of FRS units as repeaters, and proposed operating rules) simply are rehashed in the Moore Petition. See Moore Comments at 8 (repeaters), at 9-10

(CTCSS and DCS), and at 12-13 (operating rules) filed October 2, 1995. The Commission has considered and rejected these proposals.

In sum, the matters raised in the Moore Petition either are ill-conceived, are addressed by the FRS rules, or already have been considered and rejected by the Commission. The Moore Petition should be denied.

#### **IV. CONCLUSION**

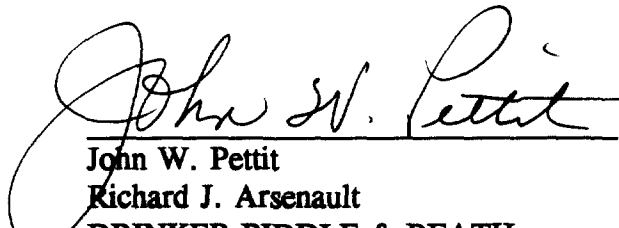
For the foregoing reasons, Tandy Corporation respectfully requests that the Commission deny the Moore Petition for Reconsideration of the Family Radio Service Order. If the Commission determines that there is some ambiguity regarding the propriety of GMRS/FRS communications on the 462 MHz channels (as suggested by Dr. Trahos), it should clarify that its rules permit such communications.

July 15, 1996

Respectfully submitted,

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## **CERTIFICATE OF SERVICE**

I, Lisa A. Dean, hereby certify that on this 15th day of July 1996 I caused a copy of the attached Opposition of Tandy Corporation to be served to the following:

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